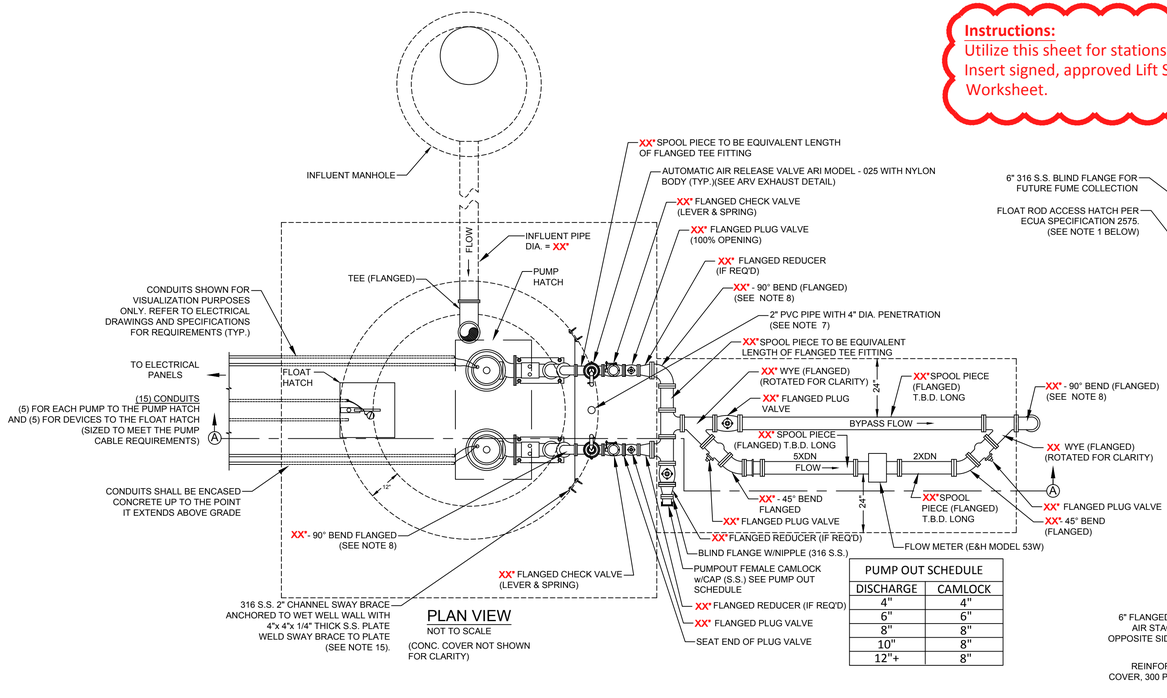
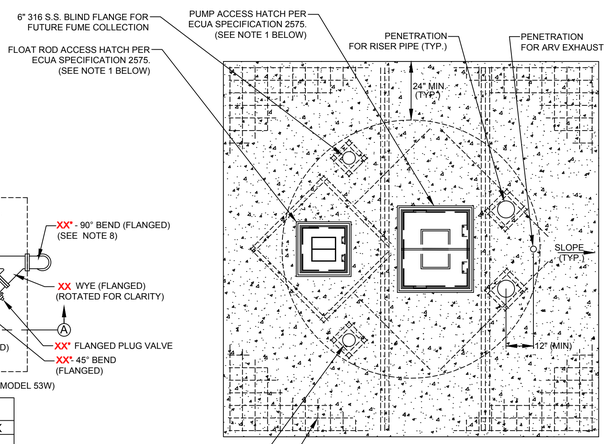
Instructions:
Utilize this sheet for stations that require flow meters. Insert signed, approved Lift Station Pump Selection Worksheet.



PLAN VIEW
NOT TO SCALE
(CONC. COVER NOT SHOWN FOR CLARITY)

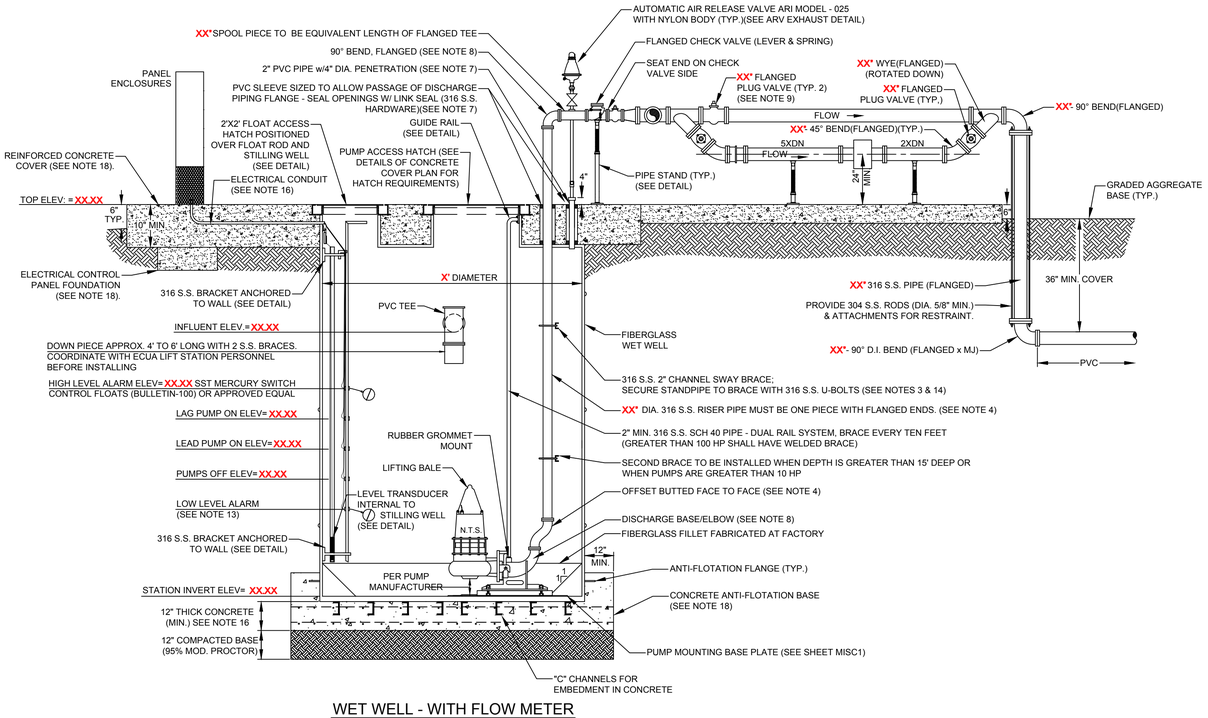
PUMP OUT SCHEDULE	
DISCHARGE	CAMLOCK
4"	4"
6"	6"
8"	8"
10"	8"
12"+	8"



NOTES:

1. FAILURE TO PROVIDE HATCHES AS SPECIFIED IN SECTION 2575 WILL RESULT IN ECUA'S REJECTION OF ACCESS HATCH AND/OR WET WELL.
2. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL BE COATED WITH A BITUMASTIC PAINT.

CONCRETE COVER PLAN
NOT TO SCALE



WET WELL - WITH FLOW METER
CROSS SECTION A-A
NOT TO SCALE

Lift Station Pump Selection Worksheet

This document shall be prepared by the Engineer of Record (EOR) and used to evaluate the three best pump options from ECUA's list of approved manufacturers for the project listed below. The pumps listed are not necessarily 'equal' with respect to overall performance, price, etc; however, they have been reviewed and approved by ECUA. These three pumps shall be listed on the plans in order to allow Bidders to price and use any of them on this project.

Project Name: _____ Project CIP #: _____

EOR/Company: _____

ECUA Project Manager: _____ Design pump rate (gpm): _____ and TDH (feet): _____

Pump Property	Pump 'A'	Pump 'B'	Pump 'C'
Manufacturer/Model #			
Supplier Company Name			
Sales Rep Name			
Vortex or Non-clog*			
RPM*			
Impeller diameter (in.)*			
Duty point flow, head (gpm,ft)*			
Shutoff Head (ft)			
Shutoff head – Duty point head			
Duty point efficiency (%)*			
Duty Point Motor Size (HP)*			
NOL motor size (HP)*			
NOL Motor FLA Rating (Amps)			
Voltage required (V)			
Max. Impellor Size (in.)			
Max. Motor Size (HP)			
Budget estimate for 3 pumps			
Delivery time (weeks)			

*Attach copy of system curve plotted on manufacturer's pump curve. Spreadsheet curves not allowed.

Approval of these pumps for use on this project:

_____ _____
Engineer of Record (EOR) Date

_____ _____ _____ _____
ECUA Project Engineer Date ECUA Lift Station Staff Date

Revised Sep. 1, 2016

GENERAL LIFT STATION NOTES

1. THE LOCATION OF INFLUENT LINES, WATER SUPPLY, ETC. ARE DRAWN OUT OF ORIENTATION ON SECTIONAL VIEW FOR CLARITY. SEE PLAN VIEW FOR PROPER ORIENTATION.
2. ALL PENETRATIONS IN WET WELL WALL FOR PIPING, ELECTRICAL, ETC. SHALL BE SEALED & SLEEVED.
3. TO PROTECT RISER PIPE FROM SWAY BRACE, EITHER WRAP PIPE WITH RUBBER SHEETING OR INSERT ALL U-BOLTS THROUGH RUBBER HOSE.
4. PIPING WITHIN THE WET WELL SHALL BE FLANGED SCHEDULE 10 316 STAINLESS STEEL. INTERMEDIATE JOINTS SHALL BE WELDED. FITTINGS WITHIN THE WET WELL SHALL BE FLANGED 316 STAINLESS STEEL. ALL NUTS, BOLTS & ACCESSORIES WITHIN THE WET WELL SHALL BE 316 STAINLESS STEEL.
5. PIPE AND FITTINGS OUTSIDE OF THE WET WELL AND ABOVE GROUND SHALL BE 316 STAINLESS STEEL (FLANGED, SCHEDULE 10). ALL WELD-ON FLANGES SHALL BE 125# RF SOCKET- WELD FLANGE OR RF WELD NECK FLANGE (TYPE). ALL BOLTS, WASHERS AND NUTS SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH "NEVER SEIZE" COMPOUND.
6. THE ANNULAR SPACE BETWEEN CONCRETE COVER AND RISER PIPE SHALL BE SEALED VIA LINK SEAL.
7. PROVIDE 4" PENETRATION THROUGH CONCRETE TOP WITH CAPPED TOP AND OPEN END BOTTOM.
8. INTERIOR SURFACES OF FITTINGS INDICATED, INCLUDING THE FLANGE MATING SURFACES, AS WELL AS THE PUMP IMPELLER, VOLUTE, AND BACKPLATE SHALL BE COATED WITH BELZONA 1321 CERAMIC S-METAL. (UNLESS OTHERWISE SPECIFIED BY OWNER)
9. PLUG VALVES SHALL HAVE AN ALLOWABLE FLOW CAPACITY EQUAL TO 100% OF THE ADJACENT PIPE AREA, AND SHALL ALLOW "PIGGING".
10. THE INTERIOR OF ALL VALVES SHALL BE COATED.
11. CONTRACTOR SHALL PROVIDE 2-3/4" CONDUITS (ONE FOR POWER AND ONE FOR SIGNAL) FOR FLOW METER (IF REQUIRED). CONTRACTOR SHALL TERMINATE WIRES IN OWNER PROVIDED ELECTRICAL CONTROL CABINET.
12. EXHAUST OF ARV'S TO BE FIELD LOCATED, PROVIDE FITTINGS AS NECESSARY, AND PIPED TO WET WELL USING 2" SCH. 80 PVC PIPE w/4" DIA. PENETRATION.
13. LOW LEVEL ALARM ELEV. TO BE SET IN COORDINATION WITH ECUA AND PUMP MANUFACTURER.
14. CONNECTION OF SWAY BRACE MOUNTING PLATE SHALL BE COORDINATED WITH PUMP MANUFACTURER.
15. A SECOND BRACE IS TO BE INSTALLED WHEN THE DEPTH OF WET WELL IS GREATER THAN 10' DEEP OR WHEN THE PUMPS ARE GREATER THAN 10 HP.
16. UNDERGROUND ELECTRICAL CONDUIT SHALL BE RIGID PER ELECTRICAL CODE. CONTRACTOR SHALL ACHIEVE THIS VIA THE USE OF METAL CONDUIT, OR PVC ENCASED IN CONCRETE, OR ALTERNATE METHOD AT THE ECUA'S APPROVAL TO MEET CODE.
17. FOR ALL SYSTEMS REQUIRING BRACES: PROVIDE MINIMUM OF THREE (3) 316 STAINLESS STEEL BRACES, EVENLY SPACED. ADD ADDITIONAL BRACES IF BRACE SPACING EXCEEDS 10'.
18. CONTRACTOR SHALL PROVIDE DESIGN PERFORMED BY FLORIDA LICENSED P.E. AND SHALL INCLUDE DESIGN IN DELEGATED ENGINEERING DOCUMENTS.

SEE NOTE #10 ON SHEET DS-0.1

Wet Well, Pumps, Piping with Flow Meter.dwg

EMERALD COAST UTILITIES AUTHORITY

SHEET NO.
DS-3.2

DATE: 9/01/2016